Safety Data Sheet



Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name
• Chroma/Haze
Product Description
• Off-white paste.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Alkaline paste cleanser

1.3 Details of the supplier of the safety data sheet

Manufacturer • IKONICS Corporation

4832 Grand Ave. Duluth, MN 55807 United States www.ikonics.com sds@ikonics.com

Telephone (General) • (218) 628-2217

Telephone (General) • (800) 328-4261 - Toll free

1.4 Emergency telephone number

Chemtrec • 1-800-424-9300 - Within USA and Canada

• +1 703-527-3887 - Outside USA and Canada (collect calls accepted)

Section 2: Hazards Identification

EU/EEC

According to EU Directive 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Skin Corrosion 1A - H314

Serious Eye Damage 1 - H318

DSD/DPD • Corrosive (C)

Harmful (Xn)

R20, R21, R22, R35

2.2 Label Elements

CLP

DANGER



Hazard statements • H314 - Causes severe skin burns and eye damage

Precautionary statements

Prevention • P260 - Do not breathe dust, fume, gas, mist, vapors and/or spray.

P264 - Wash thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response • P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or doctor/physician.

P321 - Specific treatment, see supplemental first aid information.

P363 - Wash contaminated clothing before reuse.

Storage/Disposal • P405 - Store locked up.

P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



Risk phrases • R20 - Harmful by inhalation.

R21 - Harmful in contact with skin.

R22 - Harmful if swallowed.

R35 - Causes severe burns.

Safety phrases • S36 - Wear suitable protective clothing.

S37 - Wear suitable gloves.

S39 - Wear eye/face protection.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 Other Hazards

CLPNo data availableNo data available

UN GHS

According to Third Revised Edition

2.1 Classification of the substance or mixture

UN GHS

Skin Corrosion 1A - H314
 Serious Eye Damage 1 - H318

2.2 Label elements

UN GHS

DANGER



Hazard statements • H314 - Causes severe skin burns and eye damage

Precautionary statements

Prevention • P260 - Do not breathe dust, fume, gas, mist, vapors and/or spray.

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Remove contact lenses, if present and easy to do. Continue rinsing.

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P363 - Wash contaminated clothing before reuse.

Storage/Disposal • P405 - Store locked up.

P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

UN GHS • No data available

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

Skin Corrosion 1A - H314
 Serious Eye Damage 1 - H318

OSHA HCS 1994

Corrosive

2.2 Label elements

OSHA HCS 2012

DANGER



Hazard statements • H314 - Causes severe skin burns and eye damage

Precautionary statements

Prevention • P260 - Do not breathe dust, fume, gas, mist, vapors and/or spray.

P264 - Wash thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response • P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or doctor/physician.

P321 - Specific treatment, see supplemental first aid information.

P363 - Wash contaminated clothing before reuse.

Storage/Disposal • P405 - Store locked up.

P501 - Dispose of content and/or container in accordance with local, regional, national,

and/or international regulations.

OSHA HCS 1994

Corrosive

2.3 Other hazards

OSHA HCS 2012No data availableNo data available

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS

• Corrosive - E

2.2 Label elements

WHMIS



• Corrosive - E

2.3 Other hazards

WHMIS

No data available

2.4 Other information



Key to abbreviations

= See Section 16 for full text of R and S phrases.

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

3.2 Mixtures

	Hazardous Components								
Chemical Name	Identifiers	%(weight)	LD50/LC50	Classifications According to Regulation/Directive	Comments				
2-(2- Ethoxyethoxy)- ethanol	CAS:111-90-0 EC Number:203- 919-7 EINECS:203- 919-7	15% TO 17%	Ingestion/Oral-Rat LD50 • 5500 μL/kg Inhalation-Rat LC50 • >5240 mg/m³ 4 Hour(s) Skin-Rabbit LD50 • 8.5 mL/kg 2 Hour(s)	OSHA HCS 1994: Comb. Liq.; Irrit.; Toxic WHMIS: Comb. Liq B3; Other Toxic Effects - D2B UN GHS: Acute Tox. 3 (Inhalation); Flam. Liq. 4; Eye Irrit. 2A; Skin Irrit. 2; STOT RE 2 EU DSD/DPD: Harmful(Xn); Irritant(Xi); R20; R36/37/38 EU CLP: OSHA HCS 2012:					
Potassium hydroxide	CAS:1310-58-3 EC Number:215- 181-3 UN:UN1814 (solution) EINECS:215- 181-3	15% TO 17%	Ingestion/Oral-Rat LD50 • 273 mg/kg	OSHA HCS 1994: Corr. WHMIS: Toxic - D1B; Corrosive - E UN GHS: Acute Tox. 4; Skin Corr. 1A EU DSD/DPD: Corrosive(C); R35 EU CLP: OSHA HCS 2012:					
Methanol	CAS:67-56-1 EC Number:200- 659-6 UN:UN1230 EINECS:200- 659-6	12% TO 15%	Inhalation-Rat LC50 • 64000 ppm 4 Hour(s) Skin-Rabbit LD50 • 15800 mg/kg Ingestion/Oral-Rat LD50 • 5600 mg/kg	OSHA HCS 1994: Irrit. WHMIS: Flam. Liq B2; Toxic - D1B; Other Toxic Effects - D2A UN GHS: Acute Tox. 3 (Inhalation, Skin); STOT SE 1 EU DSD/DPD: Highly Flammable(F); R11; R23/24/25; R39/23/24/25; Toxic(T) EU CLP:					

OSHA HCS 2012:

Key to abbreviations

= See Section 16 for full text of R and S phrases.

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

• IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration and call 911 or emergency medical service.

Skin

• Immediately flush skin with large amounts of water. Remove contaminated clothing. If irritation (redness, rash, blistering) develops, get medical attention.

Eye

• IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately if symptoms occur.

Ingestion

• If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Rinse mouth. Never give anything by mouth to an unconscious person. If large quantities are swallowed, call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

• Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing • SMALL FIRES: Dry chemical, CO2, water spray or regular foam.

Media

LARGE FIRES: Water spray, fog or alcohol-resistant foam.

Unsuitable

No data available

Extinguishing Media

Firefighting Procedures • Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

Avoid any skin contact.

Keep unauthorized personnel away.

LARGE FIRES: Use extinguishing agent suitable for type of surrounding fire.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards Steam generated under extreme heat may rupture the container, spreading caustic contents.

Hazardous Combustion • Products of combustion include: carbon oxides (COx).

Products

5.3 Advice for firefighters

 Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

Wear chemical protective clothing that is specifically recommended by the manufacturer.

It may provide little or no thermal protection.

Wear positive pressure self-contained breathing apparatus (SCBA).

5.4 Other information

 If leakage occurs, contents may cause extremely slippery conditions when wetted with water spray

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

 Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Contact may cause burns to skin and eyes. Ventilate enclosed areas.

Emergency Procedures

 Stop leak if you can do it without risk. Use appropriate Personal Protective Equipment (PPE)

6.2 Environmental precautions

• Avoid run off to waterways and sewers.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

Use appropriate Personal Protective Equipment (PPE).
 Contain spill area and dilute with plenty of water.
 Diluted material may be neutralized with dilute acetic acid.
 CAUTION: floor and other surfaces may be slippery.

6.4 Reference to other sections

 Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

• Handle and open container with care. Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

 Store in a cool, dry, well-ventilated place. Keep container closed when not in use

Incompatible Materials or Ignition Sources

• Keep away from aluminum, tin and zinc.

7.3 Specific end use(s)

• Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

	Exposure Limits/Guidelines								
	Result	ACGIH	Argentina	Australia	Belgium	Brazil			
Methanol	STELs	250 ppm STEL	250 ppm STEL [CMP-CPT]	250 ppm STEL; 328 mg/m3 STEL	250 ppm STEL; 333 mg/m3 STEL	Not established			
(67-56-1)	TWAs	200 ppm TWA	200 ppm TWA [CMP]	200 ppm TWA; 262 mg/m3 TWA	200 ppm TWA; 266 mg/m3 TWA	156 ppm TWA LT; 200 mg/m3 TWA LT			
Potassium hydroxide (1310-58-3)	Ceilings	2 mg/m3 Ceiling	2 mg/m3 Ceiling [CMP-C]	2 mg/m3 Peak	Not established	Not established			
		Ex	posure Limits/Gu	idelines (Con't.)					
	Result	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories			
Methanol	STELs	250 ppm STEL; 328 mg/m3 STEL	250 ppm STEL	250 ppm STEL	250 ppm STEL; 328 mg/m3 STEL	250 ppm STEL; 328 mg/m3 STEL			
(67-56-1)	TWAs	200 ppm TWA; 262 mg/m3 TWA	200 ppm TWA	200 ppm TWA	200 ppm TWA; 262 mg/m3 TWA	200 ppm TWA; 262 mg/m3 TWA			
Potassium hydroxide (1310-58-3)	Ceilings	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling			

Exposure Limits/Guidelines (Con't.)							
	Result	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec	Canada Saskatchewan	
Methanol	STELs	250 ppm STEL	250 ppm STEL; 328 mg/m3 STEL	250 ppm STEL	250 ppm STEV; 328 mg/m3 STEV	250 ppm STEL	
(67-56-1)	TWAs	200 ppm TWA	200 ppm TWA; 262 mg/m3 TWA	200 ppm TWA	200 ppm TWAEV; 262 mg/m3 TWAEV	200 ppm TWA	
Potassium hydroxide (1310-58-3)	Ceilings	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling	
2-(2- Ethoxyethoxy)- ethanol (111-90-0)	TWAs	Not established	Not established	30 ppm TWA; 165 mg/m3 TWA	Not established	Not established	
			posure Limits/Gui				
	Result	Canada Yukon	Chile	China	Denmark	Egypt	
Methanol	STELs	250 ppm STEL; 310 mg/m3 STEL	250 ppm STEL LPT; 328 mg/m3 STEL LPT	50 mg/m3 STEL	Not established	250 ppm STEL; 325 mg/m3 STEL	
(67-56-1)	TWAs	200 ppm TWA; 260 mg/m3 TWA	160 ppm TWA LPP; 210 mg/m3 TWA LPP	25 mg/m3 TWA	200 ppm TWA; 260 mg/m3 TWA	Not established	
Potassium hydroxide (1310-58-3)	Ceilings	2 mg/m3 Ceiling	2 mg/m3 Ceiling LPA	2 mg/m3 Ceiling [MAC]	2 mg/m3 Ceiling	2 mg/m3 Ceiling	
		Ex	posure Limits/Gui	delines (Con't.)			
	Result	Europe	Finland	France	Germany DFG	Germany TRGS	
Methanol (67-56-1)	TWAs	200 ppm TWA; 260 mg/m3 TWA	200 ppm TWA; 270 mg/m3 TWA	200 ppm TWA [VME] (restrictive limit); 260 mg/m3 TWA [VME] (restrictive limit)	Not established	200 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4); 270 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4)	
	STELs	Not established	250 ppm STEL; 330 mg/m3 STEL	1000 ppm STEL [VLCT]; 1300 mg/m3 STEL [VLCT]	Not established	Not established	
	Ceilings	Not established	Not established	Not established	800 ppm Peak; 1080 mg/m3 Peak	Not established	
	MAKs	Not established	Not established	Not established	200 ppm TWA MAK; 270 mg/m3 TWA MAK	Not established	
Potassium	Ceilings	Not established	2 mg/m3 Ceiling	Not established	Not established	Not established	
hydroxide (1310-58-3)	STELs	Not established	2 mg/m3 STEL	2 mg/m3 STEL [VLCT]	Not established	Not established	
2-(2- Ethoxyethoxy)- ethanol (111-90-0)	TWAs	Not established	Not established	Not established	Not established	6 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2); 35 mg/m3 TWA AGW (The risk	

	1		1	1		
						of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2)
	Ceilings	Not established	Not established	Not established	100 mg/m3 Peak (inhalable fraction)	Not established
	MAKs	Not established	Not established	Not established	50 mg/m3 TWA MAK (inhalable fraction)	Not established
		Ex	posure Limits/Gui	delines (Con't.)		
	Result	Hong Kong	India	Indonesia	Ireland	Italy
Methanol	STELs	250 ppm STEL; 328 mg/m3 STEL	250 ppm STEL; 310 mg/m3 STEL	Not established	Not established	Not established
(67-56-1)	TWAs	Not established	200 ppm TWA; 260 mg/m3 TWA	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA	200 ppm TWA; 260 mg/m3 TWA
Potassium	Ceilings	2 mg/m3 Ceiling	Not established	Not established	Not established	Not established
hydroxide (1310-58-3)	STELs	Not established	Not established	Not established	2 mg/m3 STEL	Not established
		Ex	posure Limits/Gui	delines (Con't.)		
	Result	Japan	Korea	Mexico	Netherlands	New Zealand
Methanol	TWAs	200 ppm OEL; 260 mg/m3 OEL	200 ppm TWA; 260 mg/m3 TWA	200 ppm TWA LMPE-PPT; 260 mg/m3 TWA LMPE- PPT	133 mg/m3 TWA; 100 ppm TWA	200 ppm TWA; 262 mg/m3 TWA
(67-56-1)	STELs	Not established	250 ppm STEL; 310 mg/m3 STEL	250 ppm STEL [LMPE-CT]; 310 mg/m3 STEL [LMPE-CT]	Not established	250 ppm STEL; 328 mg/m3 STEL
Potassium hydroxide (1310-58-3)	Ceilings	2 mg/m3 Ceiling	2 mg/m3 Ceiling	Not established	Not established	2 mg/m3 Ceiling
		Ex	posure Limits/Gui	delines (Con't.)		
	Result	NIOSH	Norway	OSHA	Philippines	Poland
Methanol	TWAs	200 ppm TWA; 260 mg/m3 TWA	100 ppm TWA; 130 mg/m3 TWA		200 ppm TWA; 260 mg/m3 TWA	100 mg/m3 TWA [NDS]
(67-56-1)	+ +	250 ppm STEL; 325 mg/m3 STEL	Not established	Not established	Not established	300 mg/m3 STEL [NDSCh]
	Ceilings	2 mg/m3 Ceiling	2 mg/m3 Ceiling	Not established	Not established	Not established
Potassium hydroxide	STELs	Not established	Not established	Not established	Not established	1 mg/m3 STEL [NDSCh]
(1310-58-3)	TWAs	Not established	Not established	Not established	Not established	0.5 mg/m3 TWA [NDS]
			posure Limits/Gui	· · · · · · · · · · · · · · · · · · ·		-
	Result	Portugal	Russia	Singapore	South Africa	Spain
	STELs	250 ppm STEL [VLE-CD	15 mg/m3 STEL (vapor)	250 ppm STEL; 328 mg/m3 STEL	250 ppm STEL; 310 mg/m3 STEL	Not established
Methanol (67-56-1)	TWAs	200 ppm TWA [VLE-MP]	5 mg/m3 TWA (vapor)	200 ppm PEL; 262 mg/m3 PEL	200 ppm TWA; 260 mg/m3 TWA	200 ppm TWA [VLA-ED] (indicative limit value); 266 mg/m3 TWA [VLA- ED] (indicative limit value)
	Biologica Limit Values (BLV)	Not established	Not established	Not established	Not established	15 mg/L urine end of shift Methanol (2)
Potassium hydroxide	Ceilings	2 mg/m3 Ceiling [VLE-CM]	Not established	Not established	Not established	Not established
(1310-58-3)	STELs	Not established	Not established	2 mg/m3 STEL	2 mg/m3 STEL	2 mg/m3 STEL

					[VLA-EC]			
Exposure Limits/Guidelines (Con't.)								
	Result Sweden Switzerland Taiwan Venezuela							
	MAKs	Not established	200 ppm TWA [MAK]; 260 mg/m3 TWA [MAK]	Not established	Not established			
Methanol (67-56-1)	STELs	250 ppm STV; 350 mg/m3 STV	800 ppm STEL [KZW]; 1040 mg/m3 STEL [KZW]	Not established	Not established			
	TWAs	200 ppm LLV; 250 mg/m3 LLV	Not established	200 ppm TWA; 262 mg/m3 TWA	Not established			
	MAKs	Not established	2 mg/m3 TWA [MAK] (inhalable)	Not established	Not established			
Potassium hydroxide (1310-58-3)	Ceilings	2 mg/m3 CLV (inhalable dust)	Not established	Not established	2 ppm Ceiling			
(1010 00 0)	TWAs	1 mg/m3 LLV (inhalable dust)	Not established	Not established	Not established			
2-(2-	MAKs	Not established	50 mg/m3 TWA [MAK] (inhalable)	Not established	Not established			
Ethoxyethoxy)- ethanol	STELs	30 ppm STV; 170 mg/m3 STV	100 mg/m3 STEL [KZW] (inhalable)	Not established	Not established			
(111-90-0)	TWAs	15 ppm LLV; 80 mg/m3 LLV	Not established	Not established	Not established			

Exposure Control Notations

. Australia

•Methanol (67-56-1): Skin: (skin notation)

Europe

•Methanol (67-56-1): Skin: (Possibility of significant uptake through the skin)

Japan

•Methanol (67-56-1): Skin: (May cause substantial skin absorption)

Mexico

•Methanol (67-56-1): Skin: (Skin - potential for cutaneous absorption)

Egypt

•Methanol (67-56-1): **Skin:** (Skin designation)

China

•Methanol (67-56-1): Skin: (Skin notation)

Switzerland

•2-(2-Ethoxyethoxy)-ethanol (111-90-0): **Developmental Risk Groups:** (Developmental Risk Group C)
•Methanol (67-56-1): **Developmental Risk Groups:** (Developmental Risk Group C) | **Skin:** (skin notation)

Denmark

•Methanol (67-56-1): Skin Notations: (Potential for cutaneous absorption)

Korea

•Methanol (67-56-1): Skin: (Skin notation)

Norway

•Methanol (67-56-1): Skin: (Skin notation)

Portugal

•Methanol (67-56-1): Skin: (skin - potential for cutaneous exposure)

Russia

•Methanol (67-56-1): Skin: (Skin notation)

Singapore

•Methanol (67-56-1): Odour Threshold - High: (26840 mg/m3) | Odour Threshold - Low: (13 mg/m3) | Irritation: (22875 mg/m3)

Italy

•Methanol (67-56-1): Skin: (skin - potential for cutaneous absorption)

India

•Methanol (67-56-1): **Skin:** (Skin notation)

Netherlands

•Methanol (67-56-1): Skin: (skin notation)

New Zealand

•Methanol (67-56-1): Skin: (skin notation)

South Africa

•Methanol (67-56-1): Skin: (Skin Notation)

Argentina

•Methanol (67-56-1): Skin: (Skin notation)

Belgium

•Methanol (67-56-1): Skin: (Skin)

Brazil

•Methanol (67-56-1): Skin: (skin designation)

Canada Ontario

•Methanol (67-56-1): Skin: (Absorption through skin, eyes, or mucous membranes)

Canada Quebec

•Methanol (67-56-1): Skin: (Skin designation)

Chile

•Methanol (67-56-1): Skin: (Potential for cutaneous absorption)

Finland

•Methanol (67-56-1): Skin: (Potential for cutaneous absorption)

Ireland

•Methanol (67-56-1): Skin: (Potential for cutaneous absorption)

Spain

•Methanol (67-56-1): Skin: (skin - potential for cutaneous exposure)

Sweden

•2-(2-Ethoxyethoxy)-ethanol (111-90-0): Skin: (Skin notation)

•Methanol (67-56-1): Skin: (Skin notation)

ACGIH

•Methanol (67-56-1): Skin: (Skin - potential significant contribution to overall exposure by the cutaneous route)

Germany TRGS

•Methanol (67-56-1): Skin: (skin notation)

Germany DFG

•Magnesium oxide (1309-48-4): Pregnancy: (no risk to embryo/fetus if exposure limits adhered to (respirable fraction); inhalable fraction)

•2-(2-Ethoxyethoxy)-ethanol (111-90-0): Pregnancy: (no risk to embryo/fetus if exposure limits adhered to)

•Methanol (67-56-1): Pregnancy: (no risk to embryo/fetus if exposure limits adhered to) | Skin: (skin notation)

Exposure Limits Supplemental

Switzerland

•Methanol (67-56-1): **Biological Limit Values:** (30 mg/L Medium: urine Time: end of shift, and after several shifts (for long-term exposures) Parameter: Methanol)

South Africa

•Methanol (67-56-1): **Biological Limit Values (BLV):** (15 mg/L Medium: urine Time: end of shift Parameter: Methanol; 80 mg/g Creatinine Medium: urine Time: prior to last shift of workweek Parameter: Formic acid)

Argentina

•Methanol (67-56-1): BEIs: (15 mg/L urine end of shift Methanol (Background, nonspecific))

Chile

Methanol (67-56-1): BEIs: (7 mg/g Creatinine Medium: urine Time: discretionary Parameter: Methanol)

Spain

•2-(2-Ethoxyethoxy)-ethanol (111-90-0): Under Review: (50 mg/m3 VLA-ED; 100 mg/m3 VLA-EC)

Venezuela

•Methanol (67-56-1): Biological Exposure Indices: (15 mg/L urine end of shift Methanol (F,Ne))

ACGIH

Potassium hydroxide (1310-58-3): TLV Basis - Critical Effects: (eye, skin and upper respiratory tract irritation)

•Methanol (67-56-1): **BEIs:** (15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)) | **TLV Basis - Critical Effects:** (eye damage; headache)

Germany TRGS

•Methanol (67-56-1): **BELs:** (30 mg/L Medium: urine Time: end of shift Parameter: Methanol; 30 mg/L Medium: urine Time: end of several shifts Parameter: Methanol (for long-term exposures))

8.2 Exposure controls

Engineering Measures/Controls

 Local exhaust is recommended but not required. Provide adequate ventilation as necessary.

Personal Protective Equipment

Respiratory

• In case of insufficient ventilation, wear suitable respiratory equipment. Do not breathe vapors or mists.

Eye/Face

Wear face shield and eye protection.

Hands

• Wear protective gloves - rubber or neoprene.

Skin/Body

• Wear protective clothing - apron or other impervious body coverings which are chemically resistant to caustic solutions.

General Industrial Hygiene Considerations

Environmental Exposure Controls

- Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing.
- No data available

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid paste	Appearance/Description	Paste
Color	Off-white	Odor	Mild
Taste	Not relevant	Particulate Type	Not relevant
Particulate Size	Not relevant	Aerosol Type	Not relevant
Odor Threshold	Not relevant	Physical and Chemical Properties	Not relevant
General Properties			
Boiling Point	190 to 212 F(87.7778 to 100 C)	Melting Point	Not relevant
Decomposition Temperature	Not relevant	Heat of Decomposition	Not relevant
рН	13 to 14	Specific Gravity/Relative Density	Not relevant
Density	11.68 lbs/gal	Bulk Density	Not relevant
Water Solubility	Dispersible	Solvent Solubility	No data available
Viscosity	No data available	Explosive Properties	None.
Oxidizing Properties:	Not relevant		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant	VOC (Wt.)	Not relevant
VOC (Vol.)	210 g/L	Volatiles (Wt.)	53 %
Volatiles (Vol.)	Not relevant		
Flammability	-	•	
Flash Point		UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Self-Accelerating Decomposition Temperature (SADT)	Not relevant	Heat of Combustion (ΔHc)	Not relevant
Burning Time	Not relevant	Flame Duration	Not relevant
Flame Height	Not relevant	Flame Extension	Not relevant
Ignition Distance	Not relevant	Flammability (solid, gas)	Not relevant
Environmental			
Half-Life	No data available	Octanol/Water Partition coefficient	No data available
Coefficient of water/oil distribution	No data available	Bioaccumulation Factor	No data available
Bioconcentration Factor	No data available	Biochemical Oxygen Demand BOD/BOD5	No data available
Chemical Oxygen Demand	No data available	Persistence	No data available
Degradation	No data available		

9.2 Other Information

• No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

• No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

• Stable

10.3 Possibility of hazardous reactions

• Hazardous polymerization will not occur.

10.4 Conditions to avoid

• Excess heat.

10.5 Incompatible materials

• Strong oxidizing agents. Strong acids. Aluminum, tin and zinc.

10.6 Hazardous decomposition products

• Hazardous decomposition products formed under fire conditions - carbon oxides (COx). No decomposition is expected under normal storage and use conditions.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Component Name	CAS	Data	
Potassium hydroxide (15% TO 17%)	1310-58-3	Acute Toxicity: orl-rat LD50:273 mg/kg; Irritation: eye-rbt 1 mg/24H rinse MOD; skn-rbt 50 mg/24H SEV	
GHS Properties	Classificatio	n	
Acute toxicity	EU/CLP• OSHA HCS UN GHS•	2012•	
Aspiration Hazard	EU/CLP• OSHA HCS UN GHS•	2012•	
Carcinogenicity	EU/CLP• OSHA HCS UN GHS•	2012•	
Germ Cell Mutagenicity	EU/CLP• OSHA HCS UN GHS•	2012•	
Skin corrosion/Irritation	OSHA HCS	n Corrosion 1A 2012•Skin Corrosion 1A in Corrosion 1A	
Skin sensitization	EU/CLP• OSHA HCS UN GHS•	2012•	
STOT-RE	EU/CLP• OSHA HCS UN GHS•	2012•	
STOT-SE	EU/CLP• OSHA HCS UN GHS•	2012•	
Toxicity for Reproduction	EU/CLP• OSHA HCS UN GHS•	2012•	
Respiratory sensitization	EU/CLP• OSHA HCS UN GHS•	2012•	

	EU/CLP•Serious Eye Damage 1
Serious eye damage/Irritation	OSHA HCS 2012•Serious Eye Damage 1
	UN GHS•Serious Eye Damage 1

Potential Health Effects

Inhalation

Acute (Immediate)

• May cause severe irritation.

Chronic (Delayed)

No data available

Skin

Acute (Immediate)

• May cause severe irritation and/or burns.

Chronic (Delayed)

No data available

Eye

Acute (Immediate)

• Causes serious eye damage.

Chronic (Delayed)

No data available

Ingestion

Acute (Immediate)

• May cause severe irritation and/or burns.

Chronic (Delayed)

• No data available

Section 12 - Ecological Information

12.1 Toxicity

Component	CAS	Data	Comments
2-(2-Ethoxyethoxy)-ethanol (15% TO 17%)	1111_U()_()	Crustacea: 48 Hour(s) LC50 Water Flea 3340 mg/L; Fish: 96 Hour(s) LC50 Fish 9650 mg/L	
Methanol (12% TO 15%)		Aquatic Plant(s): 24 Hour(s) EC50 Algae 10 g/L; Crustacea: 96 Hour(s) EC50 Water Flea 24.5 g/L; Fish: 96 Hour(s) LC50 Fish 19 g/L	

12.2 Persistence and degradability

• No data available

12.3 Bioaccumulative potential

• No data available

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

• Waste should be sealed in caustic-resistant containers and disposed of as hazardous waste in an approved facility. Neutralized waste may be disposed of in compliance with federal, state, and local laws.

Packaging waste • Dispose of container in accordance with local, regional, national, and/or international regulations.

13.2 Other Information

Dispose of wastes in an approved waste disposal facility.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	3262	Corrosive solid, basic, inorganic, n.o.s. (potassium hydroxide)	8	II	NDA
IMO/IMDG	3262	Corrosive solid, basic, inorganic, n.o.s. (potassium hydroxide)	8	II	NDA
IATA/ICAO	3262	Corrosive solid, basic, inorganic, n.o.s. (potassium hydroxide)	8	II	NDA

14.6 Special precautions for user

None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

· Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

State Right To Know							
Component	CAS	MA	NJ	PA			
2-(2- Ethoxyethoxy)- ethanol	111-90-0	No	Yes	Yes			
Potassium hydroxide	1310-58-3	Yes	Yes	Yes			
Methanol	67-56-1	Yes	Yes	Yes			

Inventory						
Component	CAS	Australia AICS	Canada DSL	China	EU EINECS	Japan ENCS
2-(2- Ethoxyethoxy)- ethanol	111-90-0	Yes	Yes	Yes	Yes	Yes
Potassium hydroxide	1310-58-3	Yes	Yes	Yes	Yes	Yes
Methanol	67-56-1	Yes	Yes	Yes	Yes	Yes
			Inventory (Co	n't \		

inventory (con i.)									
Component	CAS	Korea KECL	New Zealand	Philippines PICCS	TSCA				
2-(2-Ethoxyethoxy)- ethanol	111-90-0	Yes	Yes	Yes	Yes				
Potassium hydroxide	1310-58-3	Yes	Yes	Yes	Yes				
Methanol	67-56-1	Yes	Yes	Yes	Yes				

Australia

Labor

Australia - High Volume Industrial Chemicals List

•Potassium hydroxide 1310-58-3 15% TO 17%

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

•Methanol 67-56-1 12% TO 15%

Australia - List of Designated Hazardous Substances - Classification

•Potassium hydroxide 1310-58-3 15% TO 17% Xn, C R22, R35

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

•Methanol 67-56-1 12% TO 15% F, T R11, R23/24/25, R39/23/24/25

Environment

Australia - National Pollutant Inventory (NPI) Substance List

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

Methanol 67-56-1 12% TO 15% 10 tonne/vr Threshold category 1

Canada

Labor

Canada - List of Prohibited and Restricted Cosmetic Ingredients (The Cosmetic Ingredient Hotlist)

 Potassium 1310-58-3 15% TO 17% Not Listed

hydroxide

•2-(2-

Ethoxyethoxy)-111-90-0 15% TO 17% Not Listed

ethanol

Restricted (As per section 28.2 of the Cosmetic Regulations, the principal display panel of the inner label and the outer label of the container of a cosmetic, other than a disposal metal container designed to release pressurized contents by the use of a manually operated valve that forms an integral part of the container, that contains an amount of Methyl alcohol >=5 mL. shall display: a. the hazard symbol set out in column II of item 1 of Schedule II of the Consumer Chemicals and Containers Regulations, as they read on September 30th, 2001, in accordance 12% TO 15% with paragraphs 16[a] and [b] of those regulations and, b. for each of the particulars set out in column 1 of items 1 to 5 of the Consumer Chemicals and Containers Regulations, the signal word and statements set out in column III and IV of those items which shall be located on the labels in accordance with paragraphs 15[2][a] to [c] of those regulations and printed in

Methanol 67-56-1 accordance with paragraphs 17[a] and [b], 18[a], [b] and 19[1][a] and [b] and subsection 19[2] of those regulations. Cosmetics containing an amount of Methyl alcohol >=5mL must be packaged in a child-resistant container, according to part II of the Consumer Chemicals and Containers Regulations as they read on September 30th, 2001.)

Canada - WHMIS - Classifications of Substances

•Potassium hydroxide 1310-58-3 15% TO 17% D1B, E; E (0.056% in aqueous solution, 0.11%, 0.56% in aqueous solution, 2.5%, 2.8%, 5.6% in aqueous solution, 25%, 28%, 33.3%, 40%, 50% in aqueous solution)

•2-(2-Ethoxyethoxy)-111-90-0 15% TO 17% B3, D2B ethanol

Methanol 67-56-1 12% TO 15% B2, D1B, D2A, D2B (including 28%)

Canada - WHMIS - Ingredient Disclosure List

1310-58-3 15% TO 17% 1 % Potassium hydroxide •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% 1 % Methanol 67-56-1 12% TO 15% 1 %

Canada Alberta

Environment

Canada - Alberta - Ambient Air Quality Objectives

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

Methanol 67-56-1 12% TO 15% 2000 ppbv 1 hour average; 2600 µg/m3 1 hour average

China

China - Dangerous Goods List

1310-58-3 15% TO 17% UN1813 PG = II; UN1814 PG = II; UN1814 PG = III Potassium hydroxide

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% UN1230 PG = II

China - Export Control List - Part I Chemicals

Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 12% TO 15% Not Listed 67-56-1

China - List of Narcotic Drugs

Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% Not Listed

China - Major Hazard Installations for Dangerous Chemicals - Table 1

Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% 500 tonne TQ

Denmark

Environment

Denmark - List of Undesirable Substances - Reason for Selection 1310-58-3 15% TO 17% Not Listed Potassium hydroxide

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

Methanol 67-56-1 12% TO 15% Problematic properties according to the List of Dangerous Substances

Europe

Environment

EU - Seveso II Directive (96/82/EC) - Qualifying Quantities for Major Accident Notification

Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% 500 tonne

EU - Seveso II Directive (96/82/EC) - Qualifying Quantities for Safety Report Requirements

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% 5000 tonne

Other

EU - Food Additives (1333/2008/EC) - Annex II - Approved Colours

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% Not Listed EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification Potassium hydroxide 1310-58-3 15% TO 17% Xn; R22 C; R35

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

Methanol 67-56-1 12% TO 15% F; R11 T; R23/24/25-39/23/24/25

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Potassium hydroxide 1310-58-3 15% TO 17% 5%<=C: C; R35 2%<=C<5%: C; R34 0.5%<=C<2%: Xi; R36/38

•2-(2-Ethoxyethoxy)-111-90-0 15% TO 17% Not Listed ethanol

12% TO 15% $\frac{20\% <=C: T; R:23/24/25 \ 3\% <=C<20\%: Xn; R:20/21/22 \ 10\% <=C: T; R:39/23/24/25 \ 3\% <=C<10\%: Xn; R:68/20/21/22$ Methanol 67-56-1

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

 Potassium hydroxide 1310-58-3 15% TO 17% C R:22-35 S:(1/2)-26-36/37/39-45

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

Methanol 67-56-1 12% TO 15% F T R:11-23/24/25-39/23/24/25 S:(1/2)-7-16-36/37-45

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

 Potassium hydroxide 1310-58-3 15% TO 17% S:(1/2)-26-36/37/39-45

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

Methanol 67-56-1 12% TO 15% S:(1/2)-7-16-36/37-45

EU - Food Additives (2008/84/EC) - Specific Purity Criteria for Food Additives Other than Colours and Sweeteners

 Potassium hydroxide 1310-58-3 15% TO 17% E 525 •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

 Potassium hydroxide 1310-58-3 15% TO 17% Buffering •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Humectant; Solvent Methanol 67-56-1 12% TO 15% Denaturant: Solvent

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17%

Methanol 67-56-1 12% TO 15% Not Listed

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% 500000 kg

Germany - Immission Control - Qualifying Quantities for Safety Reporting

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% 5000000 kg

Environment

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

1310-58-3 15% TO 17% ID Number 345, hazard class 1 - low hazard to waters Potassium hydroxide •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% ID Number 101, hazard class 1 - low hazard to waters 12% TO 15% ID Number 145, hazard class 1 - low hazard to waters Methanol 67-56-1

Hong Kong

Labor

Hong Kong - Dangerous Substances Regulations - Classification Potassium hydroxide 1310-58-3 15% TO 17% Irritant (solution, 1-5%); Corrosive (Potassium hydroxide or solution, >5%) •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% Flammable and Toxic Hong Kong - Dangerous Substances Regulations - Particular Risks 1310-58-3 15% TO 17% R-36/38 (solution, 1-5%); R-35 (Potassium hydroxide or solution, >5%) Potassium hydroxide •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% R-11, R-23/25 Hong Kong - Dangerous Substances Regulations - Safety Precautions 1310-58-3 15% TO 17% S-22 (solution, 1-5%); S-22, S-23, S-31/33 (Potassium hydroxide or solution, >5%) Potassium hydroxide •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% S-6/8, S-13, S-16, S-20 Other Hong Kong - Dangerous Goods - Category 3 - Corrosive Substances Potassium hydroxide 1310-58-3 15% TO 17% •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% Not Listed Hong Kong - Dangerous Goods - Category 5 - Substances Giving Off Flammable Vapour Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 12% TO 15% Class 1, Division 2 67-56-1 India **Environment** India - Hazardous Chemical Rules - List of Hazardous and Toxic Chemicals 1310-58-3 15% TO 17% Potassium hydroxide

Indonesia

Environment

Methanol

Indonesia - Hazardous Waste from Non-Specific Sources 1310-58-3 15% TO 17% Waste Code: D1007c (Acid/bases) Potassium hydroxide •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% Waste Code: D1008b (Non-halogenated solvents) Indonesia - Hazardous Waste from Overdue Chemicals Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% Waste Code D3119

12% TO 15%

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

67-56-1

Japan

Labor

DOI									
Japan - ISHL Dangerous Substances									
 Potassium hydroxide 	1310-58-3	15% TO	17%	Not Listed					
•2-(2-Ethoxyethoxy)-ethanol	111-90-0	15% TO	17%	Not Listed					
•Methanol	67-56-1	12% TO	15%	Flammable substance					
Japan - ISHL Harmful Substances Requiring Workers to Subject to Medical Exams									
 Potassium hydroxide 	1310-58-3	15% TO	17%	Not Listed					
•2-(2-Ethoxyethoxy)-ethanol	111-90-0	15% TO	17%	Not Listed					
•Methanol	67-56-1	12% TO	15%	(when produced and ha	andled indoors)				
Japan - ISHL Harmful Substances Whose Names Are to be Indicated on the Label									
 Potassium hydroxide 	1310-58-3	15% TO	17%	Not Listed					
•2-(2-Ethoxyethoxy)-ethanol	111-90-0	15% TO	17%	Not Listed					
•Methanol	67-56-1	12% TO	15%	>0.3 % weight					
Japan - ISHL Notifiable Substances									
 Potassium hydroxide 	1310-58-3	15% TO 1	17% >	>1 % weight [Table 9, 3	16]				
•2-(2-Ethoxyethoxy)-ethanol	111-90-0	15% TO 1	۱۲% ۱	Not Listed					
•Methanol	67-56-1	12% TO 1	15% >	>0.1 % weight [Table 9,	560]				
Japan - ISHL Prevention of	f Organic S	Solvent Po	oison	ing					
 Potassium hydroxide 	1310-58-3	15% TO	17%	Not Listed					
•2-(2-Ethoxyethoxy)-ethanol	111-90-0	15% TO	17%	Not Listed					
•Methanol	67-56-1	12% TO	15%	Class 2					
	Japan - ISHL Dangerous S Potassium hydroxide 2-(2-Ethoxyethoxy)-ethanol Methanol Japan - ISHL Harmful Subs Potassium hydroxide 2-(2-Ethoxyethoxy)-ethanol Methanol Japan - ISHL Harmful Subs Potassium hydroxide 2-(2-Ethoxyethoxy)-ethanol Methanol Japan - ISHL Notifiable Sul Potassium hydroxide 2-(2-Ethoxyethoxy)-ethanol Methanol Japan - ISHL Notifiable Sul Potassium hydroxide 2-(2-Ethoxyethoxy)-ethanol Methanol Japan - ISHL Prevention o Potassium hydroxide 2-(2-Ethoxyethoxy)-ethanol	Japan - ISHL Dangerous Substances Potassium hydroxide 1310-58-3 •2-(2-Ethoxyethoxy)-ethanol 111-90-0 •Methanol 67-56-1 Japan - ISHL Harmful Substances Rec •Potassium hydroxide 1310-58-3 •2-(2-Ethoxyethoxy)-ethanol 111-90-0 •Methanol 67-56-1 Japan - ISHL Harmful Substances Wh •Potassium hydroxide 1310-58-3 •2-(2-Ethoxyethoxy)-ethanol 111-90-0 •Methanol 67-56-1 Japan - ISHL Notifiable Substances •Potassium hydroxide 1310-58-3 •2-(2-Ethoxyethoxy)-ethanol 111-90-0 •Methanol 67-56-1 Japan - ISHL Prevention of Organic S •Potassium hydroxide 1310-58-3 •2-(2-Ethoxyethoxy)-ethanol 111-90-0	Potassium hydroxide 1310-58-3 15% TO •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO •Methanol 67-56-1 12% TO Japan - ISHL Harmful Substances Requiring W •Potassium hydroxide 1310-58-3 15% TO •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO •Methanol 67-56-1 12% TO Japan - ISHL Harmful Substances Whose Nam •Potassium hydroxide 1310-58-3 15% TO •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO •Methanol 111-90-0 15% TO •Methanol 67-56-1 12% TO Japan - ISHL Notifiable Substances •Potassium hydroxide 1310-58-3 15% TO •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO •Methanol 67-56-1 12% TO •Methanol 67-56-1 12% TO •Methanol 111-90-0 15% TO •Methanol 111-90-0 15% TO •Potassium hydroxide 1310-58-3 15% TO	Potassium hydroxide	Japan - ISHL Dangerous Substances •Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed •Methanol 67-56-1 12% TO 15% Flammable substance Japan - ISHL Harmful Substances Requiring Workers to Subject to Medic •Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •Potassium hydroxide 111-90-0 15% TO 17% Not Listed •Methanol 67-56-1 12% TO 15% (when produced and had Japan - ISHL Harmful Substances Whose Names Are to be Indicated on the Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •Methanol 67-56-1 12% TO 15% >0.3 % weight Japan - ISHL Notifiable Substances •Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •Methanol 67-56-1 12% TO 15% >0.3 % weight Japan - ISHL Notifiable Substances •Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •Methanol 67-56-1 12% TO 15% >0.1 % weight [Table 9, 3] •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed •Methanol 67-56-1 12% TO 15% >0.1 % weight [Table 9, 3] •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed •Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed	Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed •Methanol 67-56-1 12% TO 15% Flammable substance Japan - ISHL Harmful Substances Requiring Workers to Subject to Medical Exams •Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed •Methanol 67-56-1 12% TO 15% (when produced and handled indoors) Japan - ISHL Harmful Substances Whose Names Are to be Indicated on the Label •Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed •Methanol 67-56-1 12% TO 15% >0.3 % weight Japan - ISHL Notifiable Substances •Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •Methanol 67-56-1 12% TO 15% >0.1 % weight [Table 9, 316] •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed •Methanol 67-56-1 12% TO 15% >0.1 % weight [Table 9, 560] Japan - ISHL Prevention of Organic Solvent Poisoning •Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed			

Other

Japan - Chemical Substance Control Law (CSCL) - Examined Existing Chemical Substances

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% Decomposable

Japan - Fire Service Law - Hazardous Materials

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Group 4 - Flammable liquids III (listed under 3rd Class petroleums - soluble)

12% TO 15% Group 4 - Flammable liquids II (listed under Alcohols) Methanol 67-56-1

Japan - Poisonous and Deleterious Substances

•Potassium hydroxide 1310-58-3 15% TO 17% Deleterious, >5% [Enforcement Order 65] (listed under Preparation containing Potassium hydroxide); Deleterious, 100% [Law 53]

•2-(2-Ethoxyethoxy)-

111-90-0 15% TO 17% Not Listed ethanol

12% TO 15% Deleterious, 100% [Law 83] Methanol 67-56-1

Japan - Poisonous and Deleterious Substances - Substances Not Considered Deleterious

 Potassium hydroxide 1310-58-3 15% TO 17% (<=5% in mixtures) •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% Not Listed

Japan - ISHL Working Environment Evaluation Standards - Administrative Control Levels

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% 200 ppm ACL

Korea

Other

Korea - MOE - Toxic Chemicals Control Act (TCCA) - Toxic Chemicals

1310-58-3 15% TO 17% 97-1-137, 5% or more in mixtures Potassium hydroxide

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

Methanol 67-56-1 12% TO 15% 97-1-80, 85% or more in mixtures

Mexico

Other

Mexico - Hazard Classifications

1310-58-3 15% TO 17% Hazaru Class = 0 1 8 PG = III UN1814 Hazard Class = 8 PG = II UN1813; Hazard Class = 8 PG = II UN1814; Hazard Class = Potassium hydroxide

•2-(2-Ethoxyethoxy)-

111-90-0 15% TO 17% Not Listed ethanol

Methanol 67-56-1 12% TO 15% Hazard Class = 3 (6.1) PG = II UN1230

Mexico - Regulated Substances

 Potassium hydroxide 1310-58-3 15% TO 17% UN1813; UN1814; UN1814

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% UN1230

Netherlands

Other

Netherlands - Major Accidents - Qualifying Quantities for Accident Prevention

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% 500 tonne

Netherlands - Major Accidents - Qualifying Quantities for Safety Reporting

1310-58-3 15% TO 17% Not Listed Potassium hydroxide •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% 5000 tonne

Philippines

Environment

Philippines - Prescribed Hazardous Wastes

 Potassium 1310-58-3 15% TO 17% Not Listed hydroxide

•2-(2-

Ethoxyethoxy)-111-90-0 15% TO 17% Not Listed

ethanol

Class: Waste organic solvent Waste Number: G704 (including the following non-halogenated Methanol 67-56-1 12% TO 15% solvents: Xylene, Acetone, Ethyl acetate, Ethyl benzene, Ethyl ether, Methyl isobutyl ketone, n-

Butyl alcohol, Cyclohexanol, Methanol, Cresol, Cresylic acid, Nitrobenzene, Toluene, Carbon

disulfide, Iso-butanol, Pyridine, Benzene, 2-Ethoxyethanol and 2-Nitropropane and other nonhalogenated organic solvents if they contain a total of >=10% (by volume) of one or more of these solvents before use. It also includes all still bottoms from recovery of these solvents and solvent mixtures, listed under Non-halogenated organic solvents)

Singapore

Environment

Singapore - Hazardous Substance Transport Quantities Potassium hydroxide 1310-58-3 15% TO 17% 1000 kg •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

67-56-1 12% TO 15% Not Listed Methanol

Singapore - List of Hazardous Substances

1310-58-3 15% TO 17% Exclusions: 1. Substances containing <=17%, weight in weight, of Potassium hydroxide. 2. Accumulators. 3. Batteries Potassium hydroxide

•2-(2-Ethoxyethoxy)-

111-90-0 15% TO 17% Not Listed ethanol •Methanol 67-56-1 12% TO 15% Not Listed

Singapore - Petroleum and Flammable Materials - Hazard Classes Potassium hydroxide 1310-58-3 15% TO 17% Not Listed

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed 67-56-1 Methanol 12% TO 15% Hazard Class = 3 Singapore - Petroleum and Flammable Materials - Regulated Products

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

Methanol 67-56-1 12% TO 15% SCDMNL1230L2

Other

Singapore - Corrosive and Explosive Substances - Corrosive Substances

Potassium hydroxide 1310-58-3 15% TO 17%

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% Not Listed

Thailand

Environment

Thailand - Quantities of Chemicals

 Potassium hvdroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

Methanol 67-56-1 12% TO 15% 200 ppm Quantities of Chemicals; 260 mg/m3 Quantities of Chemicals

Other

Thailand - Hazardous Substances

 Potassium hydroxide 1310-58-3 15% TO 17% Type 1 Hazardous Substance (concentration >20%)

•2-(2-Ethoxyethoxy)-111-90-0 15% TO 17% Not Listed

ethanol

12% TO 15% Type 1 Hazardous Substance (Department of Industrial Works, FDA); Type 4 Hazardous Substance (FDA) Methanol 67-56-1

Thailand - Hazardous Substances - Duties and Civil Liabilities

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

67-56-1 Methanol 12% TO 15%

Thailand - Hazardous Substances - FDA Responsible Substances

Potassium 1310-58-3 15% TO 17% Not Listed hvdroxide

•2-(2-Ethoxyethoxy)-

111-90-0 15% TO 17% Not Listed ethanol

Used in household products as solvent; Product used as fuel for cooking or warming food; Methanol 67-56-1 12% TO 15% Products for spraying and in products that the use thereof must make contact with the skin

or food

United Kingdom

Environment

United Kingdom - Pollution Inventory - Schedule 1 - Thresholds for Releases to Air

 Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed Methanol 67-56-1 12% TO 15% 100 kg

Other

United Kingdom - Major Accidents - Qualifying Quantities for Accident Prevention

Potassium hydroxide
 2-(2-Ethoxyethoxy)-ethanol
 Methanol
 1310-58-3
 15% TO 17% Not Listed
 15% TO 17% Not Listed
 15% TO 17% Not Listed
 12% TO 15% 500 tonne

United Kingdom - Major Accidents - Qualifying Quantities for Safety Reporting

Potassium hydroxide
 2-(2-Ethoxyethoxy)-ethanol
 Methanol
 1310-58-3
 15% TO 17% Not Listed
 TO 17% Not Listed
 TO 17% Not Listed
 TO 15% 5000 tonne

United States

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants
Potassium hydroxide 1310-58-3 15% TO 17% Not Listed
•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed
•Methanol 67-56-1 12% TO 15%

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

•Potassium hydroxide 1310-58-3 15% TO 17% 1000 lb final RQ; 454 kg final RQ

•2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

•Methanol 67-56-1 12% TO 15% 5000 lb final RQ; 2270 kg final RQ

U.S. - CERCLA/SARA - Section 313 - Emission Reporting
Potassium hydroxide
1310-58-3
15% TO 17% Not Listed
2-(2-Ethoxyethoxy)-ethanol 111-90-0
15% TO 17% Not Listed

•Methanol 67-56-1 12% TO 15% 1.0 % de minimis concentration

U.S. - EPA - Designated Generic Categories - Certain Glycol Ethers

Potassium hydroxide 1310-58-3 15% TO 17% Not Listed
 2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17%

•Methanol 67-56-1 12% TO 15% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

Potassium hydroxide 1310-58-3 15% TO 17% Not Listed
 2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

•Methanol 67-56-1 12% TO 15% Included in waste stream: F039

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards

Potassium hydroxide
 1310-58-3
 15% TO 17% Not Listed
 2-(2-Ethoxyethoxy)-ethanol
 111-90-0
 15% TO 17% Not Listed

•Methanol 67-56-1 12% TO 15% 5.6 mg/L (wastewater); 0.75 mg/L TCLP (nonwastewater)

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous

Characteristics

Potassium hydroxide
 1310-58-3
 15% TO 17% Not Listed
 2-(2-Ethoxyethoxy)-ethanol
 111-90-0
 15% TO 17% Not Listed

•Methanol 67-56-1 12% TO 15% waste number U154 (Ignitable waste)

United States - California

Environment

U.S. - California - Proposition 65 - Developmental Toxicity

•Potassium hydroxide 1310-58-3 15% TO 17% Not Listed •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed

•Methanol 67-56-1 12% TO 15% Developmental toxicity, initial date 3/16/12

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

•Potassium hydroxide 1310-58-3 15% TO 17% •2-(2-Ethoxyethoxy)-ethanol 111-90-0 15% TO 17% Not Listed •Methanol 67-56-1 12% TO 15%

Vietnam

Environment

Vietnam - Air Quality - Industrial Emission Standards

Potassium hydroxide
 1310-58-3
 15% TO 17% Not Listed
 2-(2-Ethoxyethoxy)-ethanol
 111-90-0
 15% TO 17% Not Listed
 15% TO 17% Not Listed
 12% TO 15% 260 mg/m3 MAC

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

15.3 Other Information

 California Proposition 65: This product contains or may contain a substance(s) known to the State of California to cause cancer and/or reproductive toxicity:

Methanol CAS No. 67-56-1 12-15%

Section 16 - Other Information

Relevant Phrases (code & full text)

• H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

P260 - Do not breathe dust, fume, gas, mist, vapours and/or spray.

P264 - Wash thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or doctor/physician.

P321 - Specific treatment, see supplemental first aid information.

P363 - Wash contaminated clothing before reuse.

P405 - Store locked up.

P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

R20 - Harmful by inhalation.

R21 - Harmful in contact with skin.

R22 - Harmful if swallowed.

R35 - Causes severe burns.

R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.

R36/37/38 - Irritating to eyes, respiratory system and skin.

R39/23/24/25 - Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

S36 - Wear suitable protective clothing.

S37 - Wear suitable gloves.

S39 - Wear eye/face protection.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Classification method for mixtures

· Calculation method.

Last Revision Date

• 06 November 2009

Preparation Date

• 14 September 2012

Other Information

• Approved by: Troy Bergstedt, Director of Chemical Research, (218) 628-2217 ext.142.

Liability

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